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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,476	08/09/2001	Atsushi Kikugawa	010983	2643

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EXAMINER

OLTMANS, ANDREW L

ART UNIT PAPER NUMBER

1742

DATE MAILED: 12/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,476

Applicant(s)

KIKUGAWA ET AL.

Examiner

Andrew L Oltmans

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

In lines 4-5 of claim 1, the claim recites, "at least one of the metals selected from ...", which appears to be incorrect Markush language, see MPEP 2173.05(h)(I). Correct Markush language would read as follows:

-- at least one of the metal selected from the group consisting of --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. On lines 5-6 of claim 1, the phrase, "a rare earth metal constituting the magnet", renders the claim indefinite because it is unclear what role the "rare earth metal" in lines 5-6 has in the claim. As currently drafted, the claim appears to recite that the coating containing various components including a rare earth metal wherein the rare earth metal is "constituting" (i.e. makes up) the magnet. This result renders the claim unclear because the coating includes a component (i.e. "a rare earth metal"), which makes up the

entire material being coated (i.e. "the magnet"). To obviate the rejection, the applicant could amend the phrase, "a rare earth metal constituting the magnet", to read -- a rare earth metal from the rare earth metal-based permanent magnet--.

- b. Claims dependent upon the above are likewise rejected under this statute.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

NOTE: All references to locations in the reference refer either to the English language abstract or the English language translation provided.

Nichiuchi et al. Japanese Patent JP 2000-150216 A

5. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Nichiuchi et al. Japanese Patent JP 2000-150216 A (JP '216).

JP '216 teaches a permanent magnet comprising a rare earth metal-based permanent magnet (i.e. R-Fe-B) having a chemical film (i.e. a conversion coating) on the surface comprising phosphorus, oxygen, fluorine and at least one of titanium and zirconium, as recited in claims 1-2 and 5 (abstract; see also paragraph [0030]). JP '216 teaches that the magnet may be a Nd-Fe-B based permanent magnet, as recited in claim 6 (paragraph [0043]). JP '216 further teaches an embodiment wherein the thickness of the chemical film is from 0.01 - 1 μm , which is fully encompassed by the range of thickness recited in claim 4 (paragraph [0008]). JP '216

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teaches that the chemical conversion film includes a rare earth metal and iron from the magnet surface, as recited in claim 1 and 3 (paragraph [0030]). JP '216 anticipates the claim 1 when component (a) is selected to be zirconium. The claims do not distinguish over the teachings of JP '216.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

NOTE: The following rejection under 35 USC 103 is applicable only to the members of the metal group defined as component (a) in claim 1 wherein the metal is molybdenum or tungsten.

Nichiuchi et al. Japanese Patent JP 2000-150216 A

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichiuchi et al. Japanese Patent JP 2000-150216 A (JP '216).

JP '216 teaches as set forth above in paragraph 5. JP '216 further teaches that it is desirable to add additional components to the chemical bath used to treat the magnet surface, including oxidizers, such as tungstic acid, its salts, molybdenum acid and its salts (paragraph [0026]).

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JP '216 fails to meet all the limitations of the instant claims in that JP '216 does not explicitly teach that molybdenum or tungsten are included in the conversion coating, as recited in claim 1.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the process steps and treatment composition taught by the reference (i.e. treating the surface of the rare-earth metal-based permanent magnet with a molybdenum or vanadium compound) are the same as the process steps and treatment composition taught in the instant specification (specification, page 8, last line to page 11, line 11) and therefore one of ordinary skill in the art would expect that the products resulting from the process taught by the reference would be the same as the product resulting from applicant's claimed process, including the product's inclusion of molybdenum or tungsten in the conversion coating.

"Where the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01. [emphasis added by examiner]

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 8:30-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Andrew L. Oltmans

Examiner

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December 4, 2002